

530-Z-92-007

Wednesday
May 20, 1992

Federal Register

Part III

Environmental Protection Agency

40 CFR Part 261

**Hazardous Waste Management System;
General; Identification and Listing of
Hazardous Waste; Used Oil; Rule**

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Part 261**

[FRL-530-Z-92-006; 4118-4]

Hazardous Waste Management System; General; Identification and Listing of Hazardous Waste; Used Oil**AGENCY:** Environmental Protection Agency.**ACTION:** Final rule.

SUMMARY: EPA is today promulgating a final listing decision for used oils based upon the technical criteria provided in the Resource Conservation and Recovery Act (RCRA) sections 1004 and 3001 and in 40 CFR 261.11 (a)(1) and (a)(3). EPA has decided not to list used oils destined for disposal as hazardous waste based on the finding that all used oils do not typically and frequently meet the technical criteria for listing a waste as hazardous waste. This rule, therefore, preserves the status quo for used oil destined for disposal. EPA today is promulgating a modification to the current exclusions from the definition of hazardous waste in 40 CFR 261.4 to provide an exemption for certain types of used oil filters. The Agency today is also providing public notice of the EPA's deferral on a decision whether or not to list residuals from the reprocessing and re-refining of used oil at this time.

The Agency is not taking final action, at this time, on a listing determination and/or management standards for used oils that are recycled as proposed in 1985 and 1991. The Agency will, in the near future, make a final decision on listing of used oil destined for recycling and appropriate management standards for used oil handlers under the authority of RCRA section 3014. If EPA promulgates additional management standards, service station dealers may be eligible to qualify for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) section 114(c) liability exemption. The Agency also may propose standards controlling the burning of used oil in boilers and furnaces at a later date.

EFFECTIVE DATE: June 19, 1992.

ADDRESSES: The docket for this rulemaking and regulatory decision is available for public inspection at room 2427, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460 from 9 a.m. to 4 p.m., Monday through Friday, except for Federal holidays. The docket number is F-91-UOLF-FFFFF. The public must make an appointment to review docket materials

by calling (202) 260-9327. The public may copy a maximum of 100 pages from any regulatory document at no cost. Additional copies cost \$.20 per page.

FOR FURTHER INFORMATION CONTACT:

For general information contact the RCRA Hotline, Office of Solid Waste, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460; Telephone (800) 424-9346 (toll free) or, in the Washington, DC, metropolitan area telephone (703) 920-9810.

For information on specific aspects of this rulemaking and regulatory decision, contact Ms. Rajni D. Joglekar (202) 260-3516 or Ms. Eydie Pines (202) 260-3509, U.S. EPA, 401 M Street, SW., Washington, DC 20460.

SUPPLEMENTARY INFORMATION: The contents of today's notice are listed in the following outline:

- I. Authority
- II. Background
 - A. Regulation as a Hazardous Waste
 - B. Used Oil Recycling Act (UORA)
 - C. Hazardous and Solid Waste Amendments (HSWA)
 - D. November 19, 1986, Decision Not to List Used Oil
 - E. Recent Agency Activities
 - F. September 1991 Supplemental Notice
 - G. Development of Comprehensive Market-Based Used Oil Recycling Program
- III. Summary of Comments Relating to Final Rule
 - A. Listing Used Oil: Summary of Major 1985 & 1991 Comments
 - B. Oil Filters: Summary of Major 1985 & 1991 Comments
- IV. Final Listing Determination
 - A. General
 - B. No List Determination for Used Oil Destined for Disposal
 - 1. Toxicity of Used Oil
 - 2. Regulations Governing the Plausible Mismanagement of Used Oil Destined for Disposal
 - a. Overview of RCRA Subtitle C regulations applicable to used oil destined for disposal
 - b. Applicability of RCRA Subtitle I regulations to used oil destined for disposal
 - c. Applicability of RCRA Subtitle D regulations to used oil destined for disposal
 - d. CERCLA reportable quantities (RQs) and used oil destined for disposal
 - e. Toxic Substances Control Act regulations and used oil destined for disposal
 - f. Clean Water Act regulations and used oil destined for disposal
 - g. Safe Drinking Water Act regulations and used oil destined for disposal
 - h. Coast Guard regulations and used oil destined for disposal
 - i. Department of Transportation regulations and used oil destined for disposal
 - j. Summary of no list decision for used oil destined for disposal
 - C. Response to Major Comments

- V. Used Oil Filter Exemption
 - A. Agency's Decision
 - B. Response to Major Comments
- VI. Used Oil Re-refining and Reprocessing Residuals
- VII. State Authorization
 - A. Applicability of Rule in Authorized States
 - B. Effect on State Authorization
- VIII. Regulatory Impact Analysis
- IX. Regulatory Flexibility Act
- X. Paperwork Reduction Act

I. Authority

This regulatory decision is issued under authority of sections 1004, 1006, 2002, 3001 and 3014 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, as amended by the Hazardous and Solid Waste Amendments, and as amended by the Used Oil Recycling Act, 42 U.S.C. 6901 *et. seq.*

II. Background**A. Regulation as a Hazardous Waste**

On December 18, 1978, EPA initially proposed guidelines and regulations for the management of hazardous wastes as well as specific rules for the identification and listing of hazardous wastes under section 3001 of the Resource Conservation and Recovery Act (RCRA) (43 FR 58946). At that time, EPA proposed to list waste lubricating oil and waste hydraulic and cutting oil¹ as hazardous wastes on the basis of their toxicity. In addition, the Agency proposed recycling regulations to regulate (1) the incineration or burning of used lubricating, hydraulic, transformer, transmission, or cutting oil that was hazardous and (2) the use of waste oils in a manner that constituted disposal.²

In the May 19, 1980, regulations (45 FR 33084), EPA decided to defer promulgation of the recycling regulations for waste oils in order to consider fully whether waste- and use-specific standards may be implemented in lieu of imposing the full set of Subtitle C regulations on potentially recoverable and valuable materials. At the same time, EPA deferred the listing of waste oil that is destined for disposal so that the entire waste oil issue could be addressed at one time. Under the May 19, 1980, regulations, however, any

¹ The term "waste oil" includes both used and unused oils that may no longer be used for their original purpose.

² "Use in a manner constituting disposal" means the placement of hazardous waste directly onto the land in a manner constituting disposal or the use of the solid waste to produce products that are applied to or placed on the land or are otherwise contained in products that are applied to or placed on the land now codified at 40 CFR 261.2(c)(1).

waste oil exhibiting one of the characteristics of hazardous waste (ignitability, corrosivity, reactivity, and toxicity) that was disposed, or accumulated, stored, or treated prior to disposal, became regulated as a hazardous waste subject to all applicable Subtitle C regulations.

B. Used Oil Recycling Act (UORA)

In an effort to encourage the recycling of used oil, and in recognition of the potential hazards posed by its mismanagement, Congress passed the Used Oil Recycling Act (UORA) on October 15, 1980 (Pub. L. 96-463). UORA defined used oil as "any oil which has been refined from crude oil, used, and as a result of such use, contaminated by physical or chemical impurities." Among other provisions, UORA required the Agency to make a determination as to the hazardousness of used oil and report the findings to Congress with a detailed statement of the data and other information upon which the determination was based. In addition, the Agency was to establish performance standards and other requirements under section 7 of UORA as "may be necessary to protect the public health and the environment from hazards associated with recycled oil" as long as such regulations "do not discourage the recovery or recycling of used oil." These statutory provisions originally were added as section 3012 of RCRA by the UORA and subsequently were amended and redesignated as section 3014 of RCRA under the Hazardous and Solid Waste Amendments of 1984.

In January 1981, EPA submitted to Congress the used oil report mandated by section 8 of the UORA.³ In the report, EPA indicated its intention to list both used oil and unused waste oil as hazardous under section 3001 of RCRA based on the presence of a number of toxicants in crude or refined oil (e.g., benzene, naphthalene, and phenols), as well as the presence of contaminants in used oil as a result of use (e.g., lead, chromium, and cadmium). In addition, the report cited the environmental and human health threats posed by these used oils and unused waste oils, including the potential threat of rendering ground water non-potable through contamination.

C. Hazardous and Solid Waste Amendments (HSWA)

On November 8, 1984, the Hazardous and Solid Waste Amendments (HSWA)

to RCRA were signed into law. In addition to many other requirements, HSWA reemphasized that the protection of human health and the environment was to be of primary concern in the regulation of hazardous waste. Specific to used oil, the Administrator was required to "promulgate regulation * * * as may be necessary to protect human health and the environment from hazards associated with recycled oil. In developing such regulations, the Administrator shall conduct an analysis of the economic impact of the regulations on the oil recycling industry. The Administrator shall ensure that such regulations do not discourage the recovery or recycling of used oil consistent with the protection of human health and the environment." (Emphasis added to highlight HSWA language amending RCRA § 3014(a) (see section 242, Pub. L. 98-616).)

HSWA required EPA to propose whether to identify or list used automobile and truck crankcase oil by November 8, 1985, and to make a final determination as to whether to identify or list any or all used oils by November 8, 1986. On November 29, 1985 (50 FR 49258), EPA proposed to list all used oils as hazardous waste, including petroleum-derived and synthetic oils, based on the presence of toxic constituents at levels of concern during and after use. Also on November 29, 1985, the Agency proposed management standards for recycled used oil (50 FR 49212) and issued final regulations, incorporated at 40 CFR part 266, subpart E, prohibiting the burning of off-specification used oil fuels⁴ in non-industrial boilers and furnaces (50 FR 49164). Marketers of used oil fuel and industrial burners of off-specification fuel are required to notify EPA of their activities and to comply with certain administrative requirements. Used oils that meet the used oil fuel specification are exempt from most of the 40 CFR part 266, subpart E regulations.

On March 10, 1986 (51 FR 8206), the Agency published a supplemental notice requesting comments on additional aspects of the proposed listing of used oil as hazardous. In particular, commenters to the November 29, 1985, proposal suggested that EPA consider a regulatory option of only listing used oil as a hazardous waste when disposed, while promulgating special management standards for used oil that is recycled.

⁴ Used Oil that exceeds any of the following specification levels is considered to be "off-specification" used oil fuel under 40 CFR 266.40(e): Arsenic—5 ppm, Cadmium—2 ppm, Chromium—10 ppm, Lead—100 ppm, Flash Point—100 °F minimum, Total Halogens—4,000 ppm.

The supplemental notice also contained a request for comments on additional issues related to the "mixture rule" (40 CFR 261.3(a)(2)(iv)), on test methods for determining halogen levels in used oils, and on new data on the composition of used oil and used oil processing residuals.

D. November 19, 1986, Decision Not To List Recycled Used Oil

On November 19, 1986, EPA issued a decision not to list as a hazardous waste used oil that is recycled (51 FR 41900). At that time, it was the Agency's belief that the stigmatic effects associated with a hazardous waste listing might discourage the recycling of used oil, thereby resulting in increased disposal of used oil in uncontrolled manners. EPA stated that several residues, wastewaters, and sludges associated with the recycling of used oil may be evaluated to determine if a hazardous waste listing for these residuals was necessary, even if used oil was not listed as a hazardous waste. EPA also outlined a plan that included making a determination of whether or not to list, as a hazardous waste, used oil that is disposed and promulgation of special management standards for recycled oil.

EPA's decision not to list used oil as a hazardous waste based on the potential stigmatic effects was challenged by the Hazardous Waste Treatment Council, the Association of Petroleum Refiners, and the Natural Resources Defense Council. The petitioners claimed that (1) the language of RCRA indicated that in determining whether to list used oil as a hazardous waste, EPA may consider technical characteristics of hazardous waste, but not the "stigma" that a hazardous listing might involve, and (2) that Congress intended EPA to consider the effects of listing on the recycled oil industry only after the initial listing decision.

On October 7, 1988, the Court of Appeals for the District of Columbia found that EPA acted contrary to law in its determination not to list used oil under RCRA § 3001 based on the stigmatic effects. (See *Hazardous Waste Treatment Council v. EPA*, 861 F.2d 270 (D.C. Cir. 1988) [HWTC I].) The court ruled that EPA must determine whether to list any used oils based on the technical criteria for waste listings specified in the statute and in EPA's implementing regulations.

E. Recent Agency Activities

After the 1988 court decision, EPA began to reevaluate its basis for making a listing determination for used oil. EPA reviewed the statute, the 1985 proposed

³ Report to Congress: Listing of Waste Oil as a Hazardous Waste Pursuant to section (8)(2), Pub. L. 96-463; U.S. EPA, 1991.

rule, and the many comments received on the proposed rule. Those comments indicated numerous concerns with the proposed listing approach. One of the most frequent concerns voiced by commenters was related to the quality and "representativeness" of the data used by EPA to characterize used oils in 1985. Numerous commenters indicated that "their oils" were not represented by the data and, if they were represented, those oils were characterized after being mixed with other more contaminated oils or with other hazardous wastes. Many commenters submitted data demonstrating that the used oils they generate, particularly industrial used oils, did not contain high levels of toxicants of concern.

In addition, the Agency recognized that much of the information in the 1985 used oil composition data is several years old, as most of the information was collected prior to 1985. Since the time of that data gathering effort, the composition of used automotive oil may have been affected by the phase-down of lead in gasoline. The Agency also recognized the need to collect analytical data addressing specific classes of used oils as collected and stored at the point of generation (*i.e.*, at the generator's facility).

Finally, the toxicity characteristic extraction procedure (EP) (45 FR 33119, May 19, 1980) identified certain used oils as hazardous. Due to the possibility of changes in used oil composition described above and promulgation of the new toxicity characteristic (TC) rule (55 FR 11798, March 29, 1990), the Agency recognized that additional data to characterize the toxicity of used oil was needed prior to making a final hazardous waste listing determination.

F. September 1991 Supplemental Notice

On September 23, 1991, EPA published a Supplemental Notice of Proposed Rulemaking (56 FR 48000). The 1991 Supplemental Notice presented supplemental information gathered by EPA and provided to EPA by individuals commenting on previous notices on the listing of used oil and used oil management standards. As discussed above, numerous commenters on the 1985 proposal to list used oil as a hazardous waste contended that the broad listing of all used oils would unfairly subject them to stringent regulation because their used oils are not hazardous. Based on those comments, the Agency has collected a variety of additional information regarding various types of used oil, the management of these used oils, and the potential health and environmental effects posed when these used oils are

mismanaged. The 1991 Supplemental Notice presented this new information to the public and requested comment on the information, particularly on the issue of whether and how the information suggests new concerns that EPA should consider in deciding whether to finalize all or part of its 1985 proposal to list used oil as a hazardous waste.

In addition, the 1991 Supplemental Notice expanded upon the November 29, 1985, proposal (50 FR 49258) to list used oils as hazardous and a March 10, 1986, Supplemental Notice (51 FR 8206) by discussing regulatory alternatives not previously presented in the *Federal Register*. Based on the public comments received relative to these two notices, the Agency investigated several important aspects of used oil regulation. For these aspects, the Agency identified alternative approaches that were not presented explicitly in the earlier notices. Those alternatives were presented in the 1991 Supplemental Notice.

The 1991 Supplemental Notice also discussed the Agency's proposal to amend 40 CFR 261.32 by adding four waste streams from the processing and re-refining of used oil to the list of hazardous wastes from specific sources. The Agency noted its intention to include these residuals in the definition of used oil in its November 29, 1985, proposal to list used oil as hazardous. The wastes from the processing and re-refining of used oil, which are more fully described later, include process residuals from the gravitational or mechanical separation of solids, water, and oil; spent polishing media used to finish used oil; distillation bottoms; and treatment residues from primary wastewater treatment.

The 1991 Supplemental Notice also included a description of several approaches the Agency was considering for the used oil management standards (in addition to, or in place of, those proposed in 1985).

G. Development of Comprehensive Market-Based Used Oil Recycling Program

In developing management standards, EPA's efforts will be focused on avoiding any damage to existing recycling markets for used oil consistent with protection of human health and the environment. At the same time, however, the Agency is interested in obtaining the optimal level of used oil recycling. In the Agency's 1991 Supplemental Notice, EPA identified several innovative market-based approaches that it was considering in the process of developing a used oil management program that would be

based on a melding of its authorities under RCRA and the Toxic Substances Control Act (TSCA).

EPA has devoted considerable resources toward the development of alternative market-based management programs. The Agency's preliminary examination indicates that there are important linkages between possible section 3014 management standards and the design of alternative incentive systems. In general, management standards that impose significant costs on used oil handlers may hamper the effectiveness of market-based programs because they discourage recycling and create unintended opportunities for fraud. Furthermore, management standards that are compatible with a particular market-based program (or no program at all) may be incompatible with other plausible alternative programs. The Agency believes that the success of any market-based program could be significantly affected by the design of incentive-compatible management standards.

Accordingly, when EPA issues its rulemaking on recycled used oil, it will address the issue of market based approaches. In doing so, the Agency will consider how market-based approaches to used oil recycling can complement management standards, promote environmentally responsive behavior and minimize compliance costs.

III. Summary of Comments Relating to Final Rule

A. Listing Used Oil: Summary of Major 1985 & 1991 Comments—

Many comments were received on the various aspects of the proposed listing of used oil. Most commenters opposed the listing of used oil as a hazardous waste. The reasons given included that EPA's sampling was unrepresentative and flawed, that used oil is no more hazardous than virgin oil, and the belief that the levels of constituents EPA found in used oils do not present a threat to human health. A large number of commenters challenged the scope of the listing and provided a number of examples where certain used oils should not be included in the listing because they do not contain the hazardous constituents of concern at concentrations exceeding health-based levels that would cause the used oil to be listed.

On November 29, 1985 (50 FR 49239), EPA proposed to list all used oils as hazardous waste, including petroleum-derived and synthetic oils, based on the presence of toxic constituents at levels of concern as a result of use or

adulteration after use. A sampling and analysis effort was undertaken by EPA in 1989 and 1990 to characterize specific categories of used oil to determine whether these used oils were hazardous at the point of generation. EPA's study was undertaken to address comments received in response to the November 1985 proposal to list all used oils wherein commenters claimed that certain types of used oil were not hazardous at the point of generation but rather were adulterated subsequent to use.

A number of commenters responded that "their" oil (such as electrical insulating or metalworking oil) did not contain toxic constituents of concern, as demonstrated by EPA's own data, and therefore, should not be listed as hazardous waste. Other commenters stated that used oil containing toxic constituents would be adequately regulated by the existing characteristics framework, such as the TC. These commenters believed that used oil exhibiting the TC and destined for disposal would be regulated as hazardous waste, while used oil not exhibiting the TC should not be regulated under any circumstances.

Some commenters proposed that only those used oils that contain certain toxic constituents, such as lead, arsenic, cadmium, chromium, 1,1,1-trichloroethane, trichloroethylene, tetrachloroethylene, toluene, and naphthalene, should be included in the listing. One commenter indicated that storage tank data rather than point of generation data should be used to make a listing determination since most of the used oil management occurs after storage. Some commenters asserted that EPA's concern is not with used oil itself but the mixing of used oil with other constituents that may render the used oil hazardous only because of post-use adulteration. Therefore, instead of listing all used oils, commenters recommended that EPA should list used oils as hazardous only if other substances have been added after the oil's initial use.

The Supplemental Notice of September 23, 1991 (56 FR 448041), presented three options for identifying used oil as a hazardous waste. Option One was to list all used oils as proposed on November 29, 1985 (50 FR 49239). Option Two was to list categories of used oil that were found to be "typically and frequently" hazardous because of the presence of lead, polyaromatic hydrocarbons (PAHs), arsenic, cadmium, chromium, and benzene. Option Three was to not list used oils as hazardous, but rely on management

standards developed under RCRA § 3014 to control mismanagement of used oil. The commenters overwhelmingly supported Option Three, not to list used oil as a hazardous waste, but rely on management standards.

A few commenters stated that as a result of EPA's program to phase down lead in gasoline, lead concentrations in used oil have declined. In addition, some commenters claimed that EPA's analyses of used oil were based on too few samples and that these samples were unrepresentative of actual conditions. Some commenters expressed a reluctance to have EPA list used oil as a hazardous waste, but urged EPA, if used oil is to be listed, to list only those used oils that are disposed and not list used oils that are recycled.

A few commenters supported the proposal to list all used oils as hazardous waste. They stated that used oil has been historically mismanaged and presents a threat to human health and the environment.

B. Oil Filters: Summary of Major 1985 and 1991 Comments

Many comments were received on the various issues raised by EPA concerning used oil filters. In response to the November 1985 proposal to list all used oil as hazardous waste, EPA received many comments on the effect of such a listing on used oil filters. Commenters to the 1985 rule stated that used oil filters would contain used oil and, thus, would be classified as hazardous waste under the mixture rule at 40 CFR 261.3(a)(2)(iv). Further, commenters stated that, due to the weight of used oil filters, small service stations and automobile repair shops would exceed the conditionally exempt small quantity generator definition because they would generate greater than 100 kg of hazardous waste in a calendar month. Commenters suggested that EPA exclude used oil filters from the definition of hazardous waste. Many suggested that EPA require that used oil filters be drained prior to disposal and pass the "Paint Filter Test" (SW-846 Method 9095) to qualify for such an exclusion.

A few commenters on the 1985 proposal expressed concern with any exclusion from the definition of hazardous waste for used oil filters. These commenters stated that used oil filters, particularly large filters, could contain significant quantities of oil. Further, these commenters pointed out that contaminants and toxic constituents may be concentrated in oil filters. The commenters suggested that EPA conduct additional studies on the

environmental and human health risks associated with the disposal of used oil filters.

In September 1991, EPA proposed to exempt used oil filters from the definition of hazardous waste if the filter has been crushed or drained. Thus, such filters would not have to be managed as a hazardous waste, even if individual filters exhibited a hazardous characteristic.

Most of the commenters supported EPA's proposal to exclude from the definition of hazardous waste (40 CFR 261.4(b)) used oil filters that have been drained and crushed. Commenters to the September 23, 1991 proposal raised the following two concerns regarding the proposed exemption:

1. Draining and crushing are not the only acceptable technologies for removing used oil from filters and may not be the best technologies.

2. Used oil filters do not exhibit the toxicity characteristic and should be exempt from Subtitle C regulation.

Some commenters suggested that draining used oil filters for 24 hours was sufficient and that after this time period, crushing was not necessary. This position was supported by some commenters that indicated that the cost of a crusher ranges from \$1,000 to \$10,000, which could be prohibitive for smaller service stations. One commenter submitted data on 31 used oil filters from trucks using gasoline (5 filters) and diesel (26 filters), which had been gravity drained for four to twenty hours. The data indicate that none of the filters exhibited the TC.

Those commenters that did not support the exclusion stated that oil filters can contain significant quantities of used oil that draining alone will not remove. The commenters disagreed as to what constitutes proper "draining and crushing." Commenters disagreed as to what constitutes adequate draining and whether crushing should be done in addition to draining. Some commenters requested that the Agency develop specifications for crushing. Other commenters stated that draining alone is not sufficient, but should be followed by crushing/dismantling and followed by recycling. Their rationale was that even after draining, filters contain 3 to 4 ounces of used oil and thus, 12 million gallons of used oil would be disposed of in Subtitle D landfills annually. Those commenters that did not support a blanket exclusion for used oil filters generally stated that the generator should test the filter with the TCLP. Based on the results of the test, the generator should handle the filters

accordingly, unless the filter will be reclaimed.

IV. Final Listing Determination

A. General

EPA regulations, based on RCRA sections 1004(5) and 3001, at 40 CFR 261.11 set forth the technical criteria to determine whether a solid waste should be listed as a hazardous waste. EPA used the technical criteria in 40 CFR 261.11 (a)(1) and (a)(3) in making today's used oil listing determinations. Subsection (a)(1) of 40 CFR 261.11 allows the Administrator to list a waste as hazardous if the waste exhibits any of the characteristics of hazardous waste. According to 40 CFR 261.11(a)(3), a waste shall be listed as hazardous if it "contains any of the toxic constituents listed in appendix VIII and, after considering the following factors, the Administrator concludes that the waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of, or otherwise managed. * * * The factors to be considered in making this determination include toxicity, fate and transport, mobility and persistence, and bioaccumulation potential of the constituents in the waste, as well as plausible mismanagement scenarios (40 CFR 261.11(a)(3)(vii)) and other federal and state regulatory actions with respect to the waste (40 CFR 261.11(a)(3)(x)).

In making a listing determination for used oil destined for disposal, EPA gave considerable attention to the current federal regulations governing used oils. EPA evaluated the technical criteria for listing in light of the current regulatory structure controlling the management of used oils and concluded that any plausible mismanagement of used oil that is destined for disposal is addressed by current requirements.

As implied in Option Three of 1991 Supplemental Notice, EPA preserved its ability to maintain the status quo if the Agency's analysis of existing regulations showed that actions have been taken to control the mismanagement of used oil. EPA finds that the current regulatory structure controlling the management of used oil destined for disposal provides adequate controls so that used oil will not pose a substantial threat to human health or the environment.

Current regulations governing the management of used oils destined for disposal include: Those of EPA and the U.S. Coast Guard for oil discharges into navigable waters; U.S. Department of Transportation requirements; EPA regulations for polychlorinated

biphenyls (PCBs) under the Toxic Substances Control Act, hazardous waste characteristics applying to used oil that is disposed under RCRA, underground storage tank requirements (UST) under RCRA; Underground Injection Control (UIC) permits under the Safe Drinking Water Act; Spill Prevention, Control and Countermeasures (SPCC) plans and National Pollutant Discharge Elimination System (NPDES) storm water regulations under the Clean Water Act; and the phase down of lead in gasoline under the Clean Air Act. In combination, application of these controls imposed by EPA and other federal agencies prevent the mismanagement of used oil to such an extent that used oil destined for disposal is unlikely to pose a substantial present or potential hazard to human health and the environment.

EPA also recognizes that several states regulate used oil as a hazardous waste, and some states regulate it as a special waste. Several states ban the disposal of used oil in municipal solid waste landfills (MSWLFs). A used oil handler must comply with all state requirements applicable to used oil in his/her state, in addition to any Federal requirements that apply.

B. No List Determination for Used Oil Destined for Disposal

In making the no list determination for used oil that is destined for disposal, EPA used the technical criteria discussed in Section IV.A.

1. Toxicity of Used Oil

In the 1991 Supplemental Notice, EPA proposed to expand the basis for listing gasoline-powered engine crankcase used oil to reflect the presence of three toxic polynuclear aromatic hydrocarbons (PAHs): Benzo(a)pyrene, benzo(b)fluoranthene, and benzo(k)fluoranthene. EPA based this expansion on the analysis of two samples of automotive crankcase used oil analyzed for benzo(k)fluoranthene and four samples of automotive crankcase used oil analyzed for benzo(a)pyrene and benzo(b)fluoranthene. With respect to the presence of PAHs in used oil, EPA believes that the current regulatory structure can control the mismanagement of recycled used oil containing toxic PAHs.

Based on the 1989/90 sampling and analysis effort the Agency tentatively determined that a high proportion of used oils from gasoline-powered engine exhibited the TC for lead and benzene. Other categories of used oil did not exhibit the TC in such a high proportion

and, in fact, did not meet the criteria for listing since they did not contain constituents of concern (constituents of the TC) at levels that could pose a risk to human health and the environment. The phase down of lead in gasoline under the Clean Air Act has resulted in subsequent reduction in lead concentrations in used oil. In addition, in accordance with the Clean Air Amendments, additional phase downs are scheduled to occur, thus further reducing the lead concentration. The lowered lead concentrations in used oil reduce the potential for harm to human health and the environment from mismanagement.

2. Regulations Governing the Plausible Mismanagement of Used Oil Destined for Disposal

Regulatory programs currently in place control used oil generators, transporters, collectors and recyclers. Since 1985, EPA has promulgated several regulatory programs that directly affect the management of used oil destined for disposal (e.g., the TC, the UST program, the MSWLF rule, the NPDES Storm Water program, and the Land Disposal Restrictions (LDRs). Also, several other regulatory programs that were in place even prior to 1985 continue to control some used oil management practices (e.g., U.S. Department of Transportation (DOT) shipping and handling requirements). After assessing the extent and potential success of current regulatory programs and their effect on the disposal of used oil, the Agency believes that the existing network of regulations provides protection from plausible disposal mismanagement scenarios, as discussed below.

a. *Overview of RCRA subtitle C regulations applicable to used oil destined for disposal.* Used oils exhibiting one or more of the characteristics of hazardous waste and which are destined for disposal continue to be regulated as hazardous wastes in accordance with all applicable subtitle C regulations, except when stored in RCRA subtitle I underground storage tanks as discussed in subsection b. of this section. Mixtures of used oils and listed hazardous wastes are listed hazardous wastes, and used oil mixed with a characteristic hazardous waste must be managed as a hazardous waste if it still exhibits a characteristic.⁵ Such

⁵ It should be noted that mixing characteristic hazardous waste with another material to render the waste nonhazardous constitutes treatment of hazardous waste subject to applicable standards under 40 CFR parts 264-265 and 270, and the

Continued

mixtures must be managed in accordance with all applicable subtitle C regulations. Those generators identified in 40 CFR 262.34⁶ and storers of hazardous used oil destined for disposal are subject to the tank system requirements at subpart J of parts 264 and 265. Used oils are also subject to the corrective action requirements of RCRA subtitle C, including sections 3004(u) and 3008(h), which apply to solid waste management units at RCRA treatment, storage, or disposal facilities.

Further, if used oil exhibits a characteristic of hazardous waste and is destined for disposal, facilities that store such used oil are subject to the tank system requirements at 40 CFR parts 264 or 265, subparts J. These requirements are designed to prevent ground water contamination and other releases to the environment and include requirements for daily inspection, tank integrity, and secondary containment. If used oil destined for disposal exhibiting a characteristic of hazardous waste is stored for greater than 90 days, the facility must be permitted under RCRA as a hazardous waste storage facility.

It is important to note that used oils exhibiting the characteristic of EP toxicity (prior to its revision) currently are prohibited from land disposal unless they meet the applicable treatment standards. Treatment standards for these wastes were promulgated with the Third Third rulemaking on June 1, 1990 (55 FR 22520). Used oils exhibiting the new TC, but not the characteristic of EP toxicity are not currently prohibited from land disposal, even if the constituent causing the waste to exhibit the TC is also controlled by the EP. LDR treatment standards for the newly identified TC wastes (including the 26 newly listed organic constituents) are scheduled to be promulgated by April 1993. Used oil which is mixed with a listed hazardous waste must meet the LDR standard for the listed waste.

b. Applicability of RCRA subtitle I regulations to used oil destined for disposal. For USTs located at permitted hazardous waste facilities subject to section 3004(u) of RCRA, the subtitle C corrective action statutory authorities supersede subtitle I corrective action requirements to avoid overlap in regulatory authority (see 40 CFR 280.60). For facilities without a final HSWA permit, subtitle I corrective action

standards will apply to releases from all petroleum and hazardous substance USTs. UST corrective actions underway at a facility having interim status under RCRA subtitle C may be subject to review by permit writers during the development of the final HSWA permit. These ongoing corrective action activities may be incorporated into the facility's final RCRA permit (53 FR 37176).

As discussed in the September 1991 supplemental proposal, EPA presumes that used oil stored in underground storage tanks is destined for recycling and currently exempt from subtitle C (40 CFR 261.6(a)(3)(iii)); thus such tanks are subject to subtitle I. The Agency continues to believe that the subtitle I standards are sufficient to protect human health and the environment from the potential releases of used oil from USTs. In conclusion, the Agency continues to view subtitle I as applicable to used oil, with the exceptions noted in the preceding paragraph where RCRA subtitle C authority is in place.

c. Applicability of RCRA subtitle D regulations to used oil destined for disposal. Nonhazardous used oil may be disposed of in an industrial solid waste landfill or a MSWLF. EPA recently promulgated final disposal criteria for MSWLFs (October 9, 1991, 56 FR 50978). The revised criteria were promulgated at 40 CFR part 258 and included location restrictions, facility design and operating criteria, ground-water monitoring requirements, corrective action requirements, financial assurance requirements, and closure and post-closure care requirements. In addition, many states have design and operating requirements governing industrial non-hazardous waste landfills.

d. CERCLA reportable quantities (RQs) and used oil destined for disposal. Any waste identified as a hazardous waste (either by listing or by characteristic) under RCRA generally becomes a hazardous substance under CERCLA. Such designation subjects the hazardous waste to the section 103 reporting requirements for releases equal to or exceeding the assigned reportable quantity (RQ) of that hazardous substance. In addition, constituents in the used oil that are not defined as hazardous waste under RCRA may be designated hazardous substances under CERCLA (see 40 CFR part 302). Therefore, in accordance with § 302.6(b) concerning mixtures or solutions, immediate notification is required when an RQ or more of any of the hazardous substances are released.

e. Toxic Substances Control Act regulations and used oil destined for disposal. Section 6(e) of the Toxic Substances Control Act (TSCA) mandates that EPA control the manufacture (including import), use, processing, distribution in commerce, and disposal of PCBs. Because of the potential hazards posed by the uncontrolled use and disposal of PCBs, EPA has established a comprehensive program to control PCBs from manufacture to disposal. A primary use of PCBs, a viscous oil, was as an insulating material for electrical equipment (dielectric). PCBs were almost always mixed with mineral oil, silicone, or other oily materials when used as insulating material. TSCA regulations prohibit the use of waste oils (including used oils) containing PCBs for dust suppression. Prohibited uses include, but are not limited to, use in road oiling, use in general dust control, use as a pesticide or herbicide carrier, and use as a rust preventative on pipes (40 CFR 761.20(d)). Used oil applied for dust suppression must meet the requirements of both RCRA and TSCA.⁷

Further, a release of 1 pound of PCBs into the environment must be reported immediately to the National Response Center in accordance with section 103(c) of CERCLA. Further, under the TSCA PCB Spill Cleanup Policy, any spill of material containing 50 ppm or greater PCBs into sewers, drinking water, surface water, grazing lands, or vegetable gardens must be reported immediately (40 CFR part 761, subpart G). If a used oil contains PCBs, the most stringent, applicable reporting requirement must be followed.

f. Clean Water Act regulations and used oil destined for disposal. In addition to the UST requirements discussed above, the storage of used oil at many petroleum-related storage facilities is subject to SPCC regulations.⁸ Under section 311(j)(i)(c) of the Clean Water Act, EPA established the SPCC program (38 FR 34165, December 11, 1973) to protect surface waters and adjoining shorelines from petroleum and

⁷ Congress banned the use of any hazardous waste as a dust suppressant under RCRA § 3004(1). Therefore, as noted above, any used oil that exhibits one or more of the characteristics (other than the characteristic of ignitability) of hazardous waste is banned from use as a dust suppressant.

⁸ The SPCC regulations (40 CFR 112) currently apply to on-shore and off-shore non-transportation related facilities that have the potential to discharge oil into navigable waterways and have underground storage tank capacities greater than 42,000 gallons or aboveground storage tank capacities of more than 660 gallons in a single tank or an aggregate of greater than 1,320 gallons.

notification requirements of section 3010 of RCRA. For example, mixing spent mineral spirits used as a solvent (exhibiting the characteristic of ignitability or toxicity) with used oil to render the mineral spirits nonhazardous constitutes treatment.

⁶ This regulation identifies regulated generators by quantity of waste generated duration of time accumulated.

other oil contamination.⁹ Facilities subject to the regulations each prepare and maintain an SPCC plan, which includes provisions for appropriate containment or diversionary structures to prevent discharged oil from reaching surface waters and adjoining shorelines. A major goal of the SPCC plan is to ensure that SPCC-regulated storage tanks and storage areas are designed to protect against releases of petroleum and other oils to navigable waters and adjoining shorelines. "Oil", when used in relation to Section 311 of the Federal Water Pollution Control Act, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Concerning used oil, releases of oil to navigable waters that (1) cause a sheen to appear on the surface, (2) violate applicable water quality standards, or (3) cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines, are reportable under 40 CFR Part 110. EPA believes that a significant number of used oil storage facilities will store used oil in tanks or containers prior to disposal. The Agency also believes that the SPCC requirements are designed to provide a sufficient level of protection to human health and the environment from potential releases of used oil to navigable water and adjoining shorelines.

Used oil generators, storage, and disposal facilities may be subject to the storm water regulations (55 FR 47990, November 16, 1990) promulgated under the Clean Water Act. The NPDES storm water regulations at 40 CFR 122.26 provide an additional layer of environmental protection against used oil disposal by industrial facilities at locations where runoff due to storm events results in releases of used oil-contaminated runoff to waters of the United States. Under these regulations, facilities with point source discharges of "storm water associated with industrial activity" to the waters of the United States, including discharges through municipal separate storm sewer systems that ultimately reach the waters of the United States, must apply for a National Pollution Discharge Elimination System (NPDES) permit. "Storm water discharge associated with industrial activity" is

⁹ On October 22, 1991 (58 FR 54612), EPA proposed revisions to the 40 CFR part 112 requirements. The proposed rule addresses a number of issues, including the mandatory nature of most of the requirements, the required procedures for completion of SPCC Plans, and the addition of a facility notification provision. If adopted, these changes would improve the SPCC program's control of potential releases of used oil.

defined to include runoff, snowmelt runoff, and surface water runoff that is discharged and is directly related to manufacturing, processing, or raw materials storage at an industrial facility (40 CFR 122.26(b)(14)).

The storm water regulations specifically apply to active and inactive landfills, land application units, and open dumps that receive or have received any industrial wastes (*i.e.*, waste from any of the categories of facilities identified under 40 CFR 122.26(b)(14) (i) to (xi)). The storm water regulations apply to those facilities that are subject to both subtitles C and D of RCRA. Commercial or retail outlets such as service stations or quick lube shops are currently excluded from CWA permit requirements unless EPA or a State designates a particular facility for permitting under section 402(p)(2)(E) of the Clean Water Act.

g. Safe Drinking Water Act regulations and used oil destined for disposal. The Underground Injection Control (UIC) regulations at 40 CFR parts 144 through 148 were promulgated pursuant to part C of the Safe Drinking Water Act and, to the extent that the regulations address hazardous waste, RCRA. The UIC program regulates the underground injection of all fluids through wells. Under 40 CFR 144.12, "No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any injection activity in a manner that allows the movement of any fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 142 or may otherwise adversely affect the health of persons."

While EPA believes it is unlikely, and not practical technically, for large volumes of used oil to be disposed into injection wells, there are cases where used oil may be mixed with other fluids (*i.e.*, wastewaters or oil and gas exploration and production wastes) and injected into UIC wells. If the presence of used oil or any constituent causes the injected fluid to be hazardous, any well injecting below an underground source of drinking water (USDW) must be permitted for hazardous waste injection. Any other well injecting a hazardous waste into or above a USDW is banned, and must be properly plugged and abandoned.

Finally, as a further measure of protection, under 40 CFR part 148 the injection of hazardous wastes for which LDR treatment standards have been promulgated is prohibited unless the waste has been treated to meet the

applicable standards in 40 CFR part 268 or an exemption has been granted based on a petition submitted under 40 CFR part 148, subpart C.

h. Coast Guard regulations and used oil destined for disposal. Releases of used oil to navigable waters and shipboard management of used oil are governed by Coast Guard regulations promulgated pursuant to MARPOL 73/78.¹⁰ Of primary importance to used oil is the regulation of bilge slop generated on-board ships. Bilge slop is a residual liquid that collects through leakage, seepage, or drainage in the holds of ships and consists primarily of water mixed with a small amount of oil. The regulations prohibit the unrestricted discharge of oil or oily mixtures into the sea and require that ships either retain bilge slop on board or separate the oil and water and retain the oil on board until the slop and oil can be discharged at a licensed shore side reception facility. Ships more than 12 nautical miles from land may only discharge oil or oily mixtures where the undiluted oil concentration is less than 100 ppm, provided the ship is not located in an ecologically sensitive area. Ships within 12 nautical miles of land may not discharge oil or oily mixtures unless the undiluted oil concentration is less than 15 ppm. The regulations also address the on shore management of bilge water at port reception facilities.

i. Department of Transportation regulations and used oil destined for disposal. The U.S. Department of Transportation (DOT) regulates the transportation of hazardous materials in commerce under the authority of the Hazardous Materials Transportation Act (HMTA) (49 CFR parts 171 to 179). Used oil is classified as a hazardous material if it meets the definition of combustible liquid (flash point below 200 °F, but equal to or greater than 100 °F) or flammable liquid (flash point below 100 °F). Used oil generators (shippers) and transporters of DOT hazardous materials have to comply with any and all applicable DOT regulations for identification and classification, packaging, marking,

¹⁰ In 1973, the International Conference on Marine Pollution adopted the International Convention for the Prevention of Pollution by Ships, 1973. This Convention was subsequently modified by the Protocol of 1978, adopted by the International Conference on Tanker Safety and Pollution Prevention. The 1973 Convention, as modified by the 1978 protocol, is known as MARPOL 73/78. MARPOL 73/78 is an international agreement designed to address the problem of marine pollution from ships on a global scale. It contains five Annexes, each of which addresses a different type of marine pollution. Annex I addresses oil pollution and is currently in effect internationally.

labeling, and shipping papers. In addition, used oil transporters (carriers) have to comply with any and all applicable DOT regulations for placarding, use of shipping papers, recordkeeping, reporting, and incident response. Used oil that is a hazardous waste and is destined for disposal is subject to those DOT regulations referenced at 40 CFR part 262, subpart C.

j. Summary of no list decision for used oil destined for disposal. For the reasons discussed above, EPA believes that the potential scenarios under which used oil may be released to the environment are adequately controlled under existing regulations. According to current estimates, a relatively small portion of the used oil generated is disposed (80 million gallons compared to over 800 million gallons being recycled by burning for energy recovery and re-refining per year). Based on the existing regulations, EPA determined that it was not necessary to categorically list used oil destined for disposal, but instead will rely on the comprehensive set of existing regulatory controls, particularly the hazardous waste characteristics.

Although the Agency proposed to list certain used oils in the September 1991 supplemental proposal, most gasoline-powered engine oils already exhibit the TC, and listing these used oils would not affect the way these used oils must be managed. In other words, the existing characteristics will adequately capture hazardous used oils under Subtitle C without a hazardous waste listing. In addition, EPA believes that the current regulatory framework can control the mismanagement of used oil containing toxic PAHs destined for disposal. Therefore, EPA has determined that used oil from gasoline-powered engine crankcases need not be listed as a hazardous waste to ensure its proper management. As for other used oils, the data collected in support of the 1991 supplemental notice continues to support the conclusion that such oils are not typically and frequently hazardous. Those oils which may pose a threat on disposal are addressed by the current regulatory framework, including the hazardous waste characteristics.

C. Response to Major Comments

Most commenters supported a no list decision for used oil destined for disposal, as existing regulations, especially the TC rule, are adequately protective. These comments were summarized in section III.A., and responses were incorporated in the preceding preamble section. A small number of commenters favored listing all or some used oil destined for

disposal as hazardous waste. These commenters cited past mismanagement of used oil as a primary reason for the necessity of a listing action. EPA believes, however, that the mismanagement incidents cited by EPA in the September 1991 notice occurred before implementation of major rulemakings governing storage of used oil. EPA believes, upon reevaluation, that the protective nature of these regulations is sufficient to guard against mismanagement of used oil until the Agency issues a hazardous waste listing determination for recycled used oil or promulgates additional management standards under RCRA section 3014.

In light of the public comments received regarding listing of gasoline-powered engine crankcase oils as proposed in Option 2, EPA believes that existing regulations prevent mismanagement of these and other used oils destined for disposal.

V. Used Oil Filter Exemption

A. Agency Decision

EPA is today finalizing the proposed exemption for used oil filters at 40 CFR 261.4(b)(13) which identifies solid wastes that are not hazardous wastes. Today's rule reduces the burden on generators to make a hazardous waste determination in a case where EPA has sufficient data to provide a categorical exemption. This exemption is limited to non-terne-plated¹¹ used oil filters which have been drained to remove used oil. Terne-plated used oil filters are not included in the exemption because the terne plating makes the filter exhibit the characteristic of toxicity for lead. As a practical matter, if an oil filter is picked up by hand or lifted by machinery and used oil immediately drips or runs from the filter, the filter should not be considered to be drained.

Under current RCRA subtitle C regulations, if a generator is intending to dispose of a used oil filter, the generator is required to determine whether the used oil filter exhibits any of the characteristics of hazardous waste. This determination can be made either by testing or by applying the generator's knowledge of the waste or process that generated the waste. EPA issued guidance on this issue through a memo¹² which states that the TCLP can

be performed on oil filters by crushing, grinding, or cutting the filter and its contents until the pieces are smaller than one centimeter and will pass through a 9.5 mm standard sieve. If the filter exhibits any of the characteristics of hazardous waste, the generator must manage it in accordance with subtitle C requirements.

Oil filters are used in two categories of vehicles, light duty and heavy duty. Light duty vehicles include automobiles, passenger vans, and light duty trucks, such as small pickup trucks. Heavy duty oil vehicles include buses and commercial trucks, such as dump trucks, tractor-trailers, mining, or construction vehicles. Oil filters may be classified into two broad categories of cartridge or spin-on types.¹³ The Filter Manufacturers Council (FMC) conducted toxicity characteristics testing on 35 light duty and 11 heavy duty spin-on oil filters. Prior to the study being undertaken, EPA reviewed FMC's sampling and analysis methodology.

In the FMC study, the spin-on filters were removed from engines at operating temperatures and either the anti-drain back valves or the filter dome end was punctured. Then, the filters were allowed to gravity drain for a 12-hour period. According to FMC, hot-draining used oil filters for 12 hours is standard industry practice. For spin-on oil filters from light-duty vehicles, the study found that none of the 35 filters exhibited the TC, although lead, chromium, cadmium, and benzene were detected. For spin-on oil filters from heavy-duty vehicles, the study determined that 5 of the 11 filters exhibited the TC for lead. These were also the five filters that were terne-plated. Terne, an alloy of lead and tin, would account for the high concentrations of lead found, 12.0-74.5 mg/l in the waste extract. A blank (unused) terne-plated oil filter had a TCLP lead concentration of 30. mg/l. The remaining six oil filters from heavy duty vehicles did not exhibit the TC. FMC later clarified their comments by writing that it is not possible to identify any categories of filters or of end uses of filters (e.g., by engine type, engine class, end use application, filter size, visual inspection of filters, etc.) which comprise exclusively terne-coated filters.

A 1990 study conducted by the Iowa Waste Reduction Center at the

¹¹ Terne is an alloy of tin and lead.

¹² The memorandum, dated October 30, 1990, is from Sylvia Lowrance, Director of the Office of Solid Waste, to Robert L. Duprey, Director of the Hazardous Waste Management Division in EPA Region VIII, and addresses regulatory determinations on used oil filters.

¹³ Cartridge filters are typically a replaceable pleated paper filter media formed in a cylinder around a perforated metal center tube. Metal end caps and nitrile rubber grommets are used to prevent flow around the filter media. Spin-on filters are essentially cartridge filters that are assembled into a filter can or body.

University of Northern Iowa showed that 44 percent to 55 percent of the used oil could be removed through draining and about 88 percent could be removed through compaction. One commenter demonstrated, through TCLP analysis, that light-duty used automotive oil filters from which used oil is removed by pressurized air are nonhazardous. As much as 8 ounces of used oil can be removed in seconds by using this method, according to this commenter.

Based on the data submitted, non-terne-plated, hot-drained¹⁴ used oil filters do not typically and frequently exhibit the TC. The source of the hazard exhibited by the non-terne-plated used oil filters is the used oil they contain prior to being drained; thus, as much of the oil as possible should be removed. EPA has determined that non-terne-plated used oil filters that have been hot-drained of used oil for a minimum of 12 hours after puncturing either the anti-drain back valve or the dome end do not appear to exhibit the TC. EPA is thus recommending a minimum 12-hour hot-drain time for punctured or pierced used oil filters, but is not adopting a regulatory standard in order to allow for the development of alternate used oil removal techniques. Similarly, hot-drained and crushed filters, or dismantled and drained filters do not appear to exhibit the TC. In addition, light-duty automotive used oil filters that have been subjected to air pressure for oil removal do not appear to exhibit the TC.

Terne-plated oil filters are not included in the exemption; therefore, a hazardous waste determination must be made prior to disposal in a landfill. EPA received inadequate data to make a determination on other types of filters, such as fuel filters, transmission oil filters, or specialty filters (such as cloth railroad oil filters). Since there is a lack of quantitative data on these types of filters, they are not included in the scope of the exemption being finalized today.

The Agency is recommending that the recyclable used oil and other recyclable elements of the oil filter, such as the canister, gasket, and filter paper, be separated and recycled. EPA is therefore requiring that filters qualifying for the exemption first have the used oil removed using one of the following gravity hot-draining methods:

- (1) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;
- (2) Hot-draining and crushing;
- (3) Dismantling and hot-draining; or

¹⁴ "Hot-drained" means that the oil filter is drained near engine operating temperature and above room temperature (i.e., 60 °F).

(4) Any other equivalent hot-draining method which will remove used oil. Then, once the used oil is removed, it can be recycled (as can the scrap metal).

Finally, EPA encourages manufacturers of terne-plated filters to pursue source reduction alternatives to terne plating. EPA encourages generators to recycle used oil and used oil filters. In choosing the used oil removal technique, it is important to ensure that the operation is compatible with the ultimate recycling procedure. For example, if the filters are destined for a smelter, hot-draining and crushing may be appropriate. However, if the filters will be separated into their component parts (e.g., used oil, metal, and filtration media) and recycled separately, puncturing and gravity hot-draining may be more appropriate since crushing may hinder the separation of the metal from the filtration media. EPA also encourages steel mills and scrap metal recyclers to accept used oil filters, from which oil has been removed, as a solid waste for scrap feed in steel production.

B. Response to Major Comments

As discussed above, EPA received data that indicate that most oil filters from which used oil is removed do not exhibit a characteristic of hazardous waste, including toxicity. The Agency is not concerned about the volume of used oil remaining in the filters subsequent to draining because, according to commenter-submitted data, the filters hot-drained for at least 12 hours do not appear to be hazardous. EPA has responded to commenters advocating various methods of oil removal by promulgating an exemption for filters from which used oil has been removed through gravity hot-draining after puncturing the filter, hot-draining and crushing, or dismantling and draining. Examples of oil removal methods include flushing of oil filters with pressurized air to drain used oil from oil filters, and spinning of the oil-soaked filter paper media removed from oil filters to remove residual oil. Based on the limited data available, it appears that both of these methods adequately remove used oil in order to make oil filters nonhazardous. No technical specifications or performance standards for crushing oil filters have been developed, although such specifications were requested, because inadequate TCLP data were received to support development of a standard for crushed filters. No correlation between crushing force or crushed filter height and TCLP results could be made from the available data. Moreover, crushing specifications could restrict the development of

alternative crusher designs and other oil removal techniques. Supporters of the proposed exemption contended that due to analytical data used, filters that have been drained for 12 or 24 hours of free oil will not pose any significant hazards when disposed of as nonhazardous waste. Although the comments supplied by the one commenter indicated that draining for as little as four hours may produce a nonhazardous truck filter, EPA had inadequate data to conclude that a four-hour hot-drain would be adequate for all used oil filters.

VI. Used Oil Re-Refining and Reprocessing Residuals

In the September 23, 1991, Supplemental Notice of Proposed Rulemaking (56 FR 48027), EPA proposed to list as hazardous waste four residuals from the reprocessing and re-refining of used oil. EPA's consideration of separate listings stemmed from the November 1985 proposal to list all used oil as hazardous waste and the collection of additional data on residuals between 1986 and 1988.

The specific wastes resulting from the reprocessing and re-refining of used oil that were proposed for listing as hazardous in the September 1991 notice are:

- K152—Process residuals from the gravitational or mechanical separation of solids, water, and oil for the reprocessing or re-refining of used oil, including filter residues, tank bottoms, pretreatment sludges, and centrifuge sludges
- K153—Spent polishing media from the finishing of used oil in the reprocessing or re-refining process, including spent clay compounds and spent catalysts
- K154—Distillation bottoms from the reprocessing or re-refining of used oil
- K155—Treatment residues from oil/water/solids separation in the primary treatment of wastewaters from the reprocessing and re-refining of used oil

EPA received a number of comments on these proposed listings. Based on data and comment received in response to the proposal, EPA has determined that further study is required to adequately characterize residuals from reprocessing and re-refining of used oil and is today deferring a decision on its 1991 proposal to list these wastes.

EPA's proposed listing was based on data gathered from recycling facilities in 1985 and 1986. Commenters stated that recycling practices and processes had changed significantly in the intervening five to six years. These commenters

cited that discontinued use of the acid-clay treatment process and the reduction of toxic constituents in the residuals.

EPA will continue to evaluate data for residuals from the reprocessing and re-refining of used oil. EPA will evaluate the management practices employed at facilities that generate these residuals to determine whether such practices pose a threat to human health and the environment.

VII. State Authorization

A. Applicability of Rule in Authorized States

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program within the State. (See 40 CFR part 271 for the standards and requirements for authorization.) Following authorization, EPA retains enforcement authority under sections 3008, 30013, and 7003 of RCRA, although authorized States have primary enforcement responsibility.

Prior to HSWA, a State with final authorization administered its hazardous waste program entirely in lieu of EPA administering the Federal program in that State. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities in the State which the State was authorized to permit. When new, more stringent Federal requirements were promulgated or enacted, the State was obliged to enact equivalent authority within specified time frames. New Federal requirements did not take effect in an authorized State until the State adopted the requirements as State law.

In contrast, under section 3006(g) of RCRA, 42 U.S.C. 6926(g), new requirements and prohibitions imposed by the HSWA take effect in authorized States at the same time that they take effect in nonauthorized States. EPA is directed to carry out those requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so. However, any authorized State requirement that is more stringent than a HSWA requirement that is less stringent than the Federal program for which the State was authorized remains authorized and in effect under State law.

Today's rule is promulgated pursuant to section 3001(g) of RCRA, a provision added by HSWA, and pursuant to section 3001(b)(1) of RCRA, a non-HSWA provision. This rule revises and narrows the scope of definition of hazardous waste to exclude non-terrestrial used oil filters that have been

gravity hot-drained of used oil through puncturing the filter anti-drain back valve or the filter dome end and hot-draining, hot-draining and crushing, dismantling and hot-draining, or any other equivalent hot-draining method which will remove used oil. The exemption from the definition of hazardous waste being finalized today for used oil filters narrows the scope of the TC rule promulgated pursuant to HSWA authority as well as the characteristic of EP toxicity regulation promulgated under non-HSWA authority. To avoid any confusion regarding the status of used oil filters, EPA considers the exemption to be a HSWA rule, since it, in part, exempts wastes from a HSWA-promulgated rule.

B. Effect on State Authorizations

Authorized States are only required to modify their programs when EPA promulgates Federal standards that are more stringent or broader in scope than the existing Federal standards. Section 3009 of RCRA allows States to impose standards more stringent than those in the Federal program. For those Federal program changes that are less stringent or reduce the scope of the Federal program, States are not required to modify their programs. See 40 CFR 271.1(k). The standard promulgated today is less stringent than or reduces the scope of the existing Federal requirements. This provision appears in 40 CFR 261.4(b)(13). Therefore, authorized States would not be required to modify their programs to adopt requirements equivalent to or substantially equivalent to the provision listed above.

Because the rule is promulgated pursuant to HSWA, a State which chooses to submit a program modification may apply to receive either interim or final authorization under section 3006(g)(2) or 3006(b), respectively, on the basis of requirements that are substantially equivalent or equivalent to EPA's. The procedures and schedule for State program modifications for either interim or final authorization are described in 40 CFR 271.21. It should be noted that all HSWA interim authorizations will expire January 1, 1993. (See 40 CFR 271.24(c).)

States with authorized RCRA programs may already have requirements similar to those in today's rule. These State regulations have not been assessed against the Federal regulations being promulgated today to determine whether they meet the tests for authorization. Thus, a State is not authorized to implement these requirements in lieu of EPA until the

State program modification is approved. Of course, States with existing standards may continue to administer and enforce their standards as a matter of State law. In authorized States with more stringent regulations, EPA will continue to enforce the State's more stringent regulations. In implementing the Federal program, EPA will work with States under cooperative agreements to minimize duplication of efforts. In many cases, EPA will be able to defer to the States in their efforts to implement their programs, rather than take separate actions under Federal authority.

States that submit their official applications for final authorization less than 12 months after the effective date of these standards are not required to include standards equivalent to these standards in their application. However, the State must modify its program by the deadlines set forth in 40 CFR 271.21(e). States that submit official applications for final authorization 12 months after the effective date of these standards must include standards equivalent to these standards in their application. 40 CFR 271.3 sets forth the requirements a State must meet when submitting its final authorization package.

VIII. Regulatory Impact Analysis

Today's decision not to list used oil managed for disposal as a hazardous waste does not impose any new regulatory compliance requirements or costs on used oil generators or handlers. Although a regulatory impact analysis under Executive Order 12291 is therefore not required to support this decision, this section of today's preamble briefly summarizes the Agency's cost and general impact analysis for the previously proposed listing option being considered prior to today's rulemaking.

Costs of listing disposed used oil were evaluated in the Economic Impact Screening Analysis Section of the September 1991 Supplemental Notice preamble under the two headings of "ban on land, disposal," and "ban on road oiling," with annual cost estimates of \$16.3 and \$7.4 million, respectively (56 FR 48068-69).

Costs of the land disposal ban (listing of disposed oil) are relatively low for two reasons. First, relatively little used oil is formally "land managed" in recognized landfills, and it was assumed in estimating costs that both household DIY oil and non-household oil illegally dumped by either small or large quantity generators would not be controlled under the subtitle C management requirement. In addition, in the September 1991 cost analysis, it was

assumed as a best estimate that 75 percent of the land-disposed oil subject to the listing would be diverted to recycling at relatively low cost, with only the remaining 25 percent being managed at higher cost in a cement kiln or equivalent Subtitle C technology.

For road oiling, it was similarly assumed that the oil could be readily diverted to other recycling at virtually no additional cost (the cost of the ban being attributable to the higher cost of substitute dust suppression agents such as calcium chloride).

Recycling would have been promoted somewhat by the listing of used oil destined for disposal because disposal would be much more costly than recycling options. On the other hand, there would also be a perverse incentive towards illegal dumping and other improper land disposal outlets as land disposal became more costly.

IX. Regulatory Flexibility Act

The agency certifies that, within the scope of the Regulatory Flexibility Act,

today's decision will not have a significant impact on a substantial number of small entities. The regulation imposes no new regulatory or economic requirements on small business.

X. Paperwork Reduction Act

This notice contains no information collection requirements, and therefore imposes no new paperwork burden.

List of Subjects in 40 CFR Part 261

Hazardous waste, Recycling.

Dated: May 1, 1992.

F. Henry Habicht, II,
Deputy Administrator.

For the reasons set forth in the preamble, title 40 part 261 of the Code of Federal Regulations is amended as follows:

PART 261—IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921 and 6922.

3. Section 261.4 is amended by adding paragraph (b)(15) to read as follows:

§ 261.4 Exclusions

* * * * *

(b) * * *

(15) Non-terne plated used oil filters that are not mixed with waste listed in subpart C of this part if these oil filters have been gravity hot-drained using one of the following methods:

(i) Puncturing the filter anti-drain back valve or the filter dome end and hot-draining;

(ii) Hot-draining and crushing;

(iii) Dismantling and hot-draining; or

(iv) Any other equivalent hot-draining method which will remove used oil.

* * * * *

[FR Doc. 92-11385 Filed 5-19-92; 8:45 am]

BILLING CODE 6560-50-M